

SUPPLEMENTARY MATERIAL

Supplementary Table 1. Transition planning

Item	% of disagreement		% of neutral		% of agreement	
	1 st round	2 nd round ^a	1 st round	2 nd round ^a	1 st round	2 nd round ^a
<i>Pediatricians should formally start the transition process when the patient...</i>						
...Turns 12-14 years old	49*	41*	27*	25*	25*	35*
...Turns 14-16 years old	14*	13*	30*	17*	56*	69*
...Turns 16-18 years old	22*	36*	28*	26*	50*	39*
...Shows an adequate degree of maturity, regardless of the biological age	30*	33*	24*	32*	47*	36*
...The patient and/or parents/guardians requests the transition to adult care	38*	53*	35*	31*	28*	16*
<i>During the transition process, the healthcare team should aim for the adolescent patient to...</i>						
...Reach a degree of maturity so that the patient can responsibly manage severe asthma disease	1	-	3	-	96	-
... Identify severe asthma disease features correctly	2	-	3	-	95	-
...Identify each of the prescribed medications, understand the reason for its prescription and to know how and when to take them	1	-	7	-	92	-
...Demonstrate using a correct inhaler technique	1	-	8	-	91	-
...Adhere to prescribed maintenance treatments without family supervision	3	-	7	-	90	-
...Correctly identify the prescribed biological therapy, posology and the reason for the prescription (in case of biological treatment)	1	-	10	-	89	-
...Reach a level of maturity so he can become the main interlocutor with adult care specialists	5	-	13	-	82	-
...Have a home environment that favors their independence as a patient	6	-	15	-	79	-
...Be able to attend follow-up visits on their own, with no company	16*	25*	34*	43*	50*	32*

^aOnly those items without consensus in the first round were voted in the second round. * indicates items not reaching consensus in the first/second round.

Supplementary Table 2. Transition process: Preparation stage

Item	% of disagreement		% of neutral		% of agreement	
	1 st round	2 nd round ^a	1 st round	2 nd round ^a	1 st round	2 nd round ^a
Selection of patient candidate for transition						
<i>The pediatric healthcare team should...</i>						
...Define an individualized transition plan for each adolescent patient before initiating the transition process	0	-	8	-	92	-
...Identify the adolescent patient candidate to starting the transition	0	-	10	-	90	-
Patient empowerment						
<i>The pediatric healthcare team should...</i>						
...Educate the adolescent patient so they can detect exacerbations adequately	0	-	2	-	98	-
...Educate the adolescent patient so they have a deep knowledge of prescribed treatments and show an adequate use of them	0	-	3	-	97	-
...Adapt treatment schedule to facilitate adherence during the preparation stage and the overall transition process	0	-	5	-	95	-
...Educate the adolescent patient on healthy activities and on prevention of those activities that could impact disease management	0	-	6	-	94	-
...Adopt a communication style oriented to the characteristics of the adolescent patient	0	-	6	-	94	-
...Educate the adolescent patient to acquire appropriate capabilities in severe asthma knowledge	0	-	7	-	93	-
...Verify that the adolescent patient is capable of managing severe asthma autonomously	2	-	7	-	91	-
...Encourage the adolescent patient to become the main interlocutor with the healthcare team	0	-	10	-	90	-
...Have written information about severe asthma and the transition process to provide the patient with	2	-	9	-	89	-
...Verify that the adolescent patient is able to describe the characteristics of their disease adequately	1	-	14	-	85	-
...Understand the transition process is a part of the personal growth of the patient	1	-	14	-	85	-
...schedule follow-up visits with the patient in the absence of parents/guardians to assess their readiness level for the transition to adult care	9*	19*	26*	36*	65*	45*

Information and education resources for parents/guardians						
<i>The pediatric healthcare team should...</i>						
...Identify factors within the adolescent patient's home environment that may challenge the transition process	0	-	6	-	94	-
...Inform the patient and parents/guardians about how the transition process will occur	0	-	8	-	92	-
...Prepare parents/guardians to start gradually assuming a secondary role, assigning increasing responsibility to the patient over disease self-management	3	-	9	-	88	-
Interaction with adult care specialists						
<i>(Pediatric/Adult) Healthcare teams should...</i>						
(Adult)...Be severe asthma specialists with expertise in personalized treatments	1	-	2	-	97	-
(Adult)...Be able to manage the complexity of the adolescent patient all the way through this life-changing period	0	-	5	-	95	-
(Pediatric)...Develop a line of communication with the allergist/pulmonologist that will treat the adolescent patient in the future before transferring the patient to adult care	0	-	6	-	94	-
(Adult)...Have specific training in management of adolescent patients	0	-	10	-	90	-
(Pediatric and adult)...Ensure that the patient and their parents/guardians meet the adult care team that will manage the patient in the future	1	-	11	-	88	-
(Pediatric)...Inform the adult specialist team that the patient has started the process of transition to adult care	2	-	13	-	85	-
Information to be transmitted to adult care specialists						
<i>The pediatric healthcare team should...</i>						
...Share detailed information regarding patient's medical history with adult care specialists	0	-	1	-	99	-

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Supplementary Table 3. Transition process: Effective transfer stage

Item	% of disagreement		% of neutral		% of agreement	
	1 st round	2 nd round ^a	1 st round	2 nd round ^a	1 st round	2 nd round ^a
Patient status						
<i>The pediatric healthcare team should...</i>						
...Verify that the patient is not undergoing pharmacological treatments changes	7	-	22	-	70	-
...Wait for the patient to reach a stable phase of severe asthma symptoms before initiating the transfer to adult care	15*	29*	28*	20*	57*	51*
Transition visit						
<i>Both healthcare teams (pediatric and adult) should...</i>						
...Share updated patient's clinical information before the transition visit with the patient takes place	0	-	3	-	97	-
...Agree on the criteria to maintain biological therapy after the joint visit (if the patient is receiving biological treatment)	1	-	14	-	85	-
...Have an on-site joint visit with the patient before the transfer to adult care	11	-	18	-	71	-
...Verify, after the joint visit, that the parents/guardians adopt a secondary role	4*	9*	29*	30*	67*	61*
...When an on-site joint visit is not possible, have a joint online visit (telephone or videoconference) with the patient before the transfer to adult care	11*	24*	29*	24*	60*	52*
...Carry out the joint visit with the patient in the pediatric care premises	19*	25*	36*	34*	45*	40*
...Carry out the joint visit with the patient in the adult care premises	34*	34*	38*	51*	29*	14*
Biological treatment (when the patient is transferred to different hospital)						
<i>The healthcare team should</i>						
(Pediatric) ...Inform the hospital pharmacy service about the patient's transfer to adult care in a different hospital and remove the patient from the biological dispensation registry	3	-	6	-	91	-
(Adult) ...Inform the hospital pharmacy service about a patient being transferred from pediatric care from a different hospital and enroll the patient on the biological dispensation registry	2	-	7	-	91	-

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Supplementary Table 4. Transition process: Follow-up stage

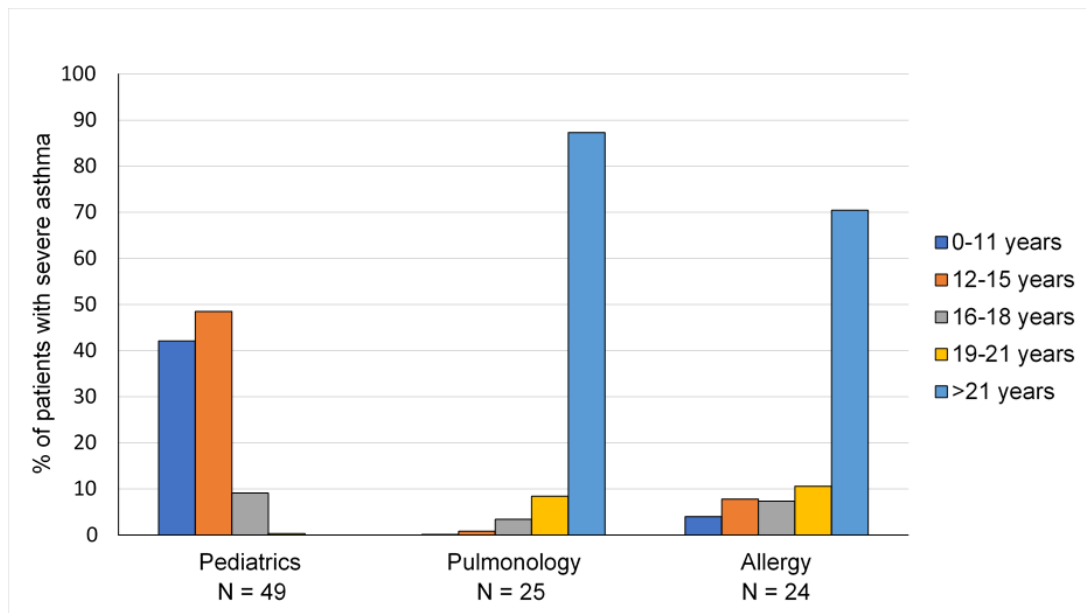
Item	% of disagreement		% of neutral		% of agreement	
	1 st round	2 nd round ^a	1 st round	2 nd round ^a	1 st round	2 nd round ^a
<i>The (adult/pediatric) healthcare team should...</i>						
(Adult) ...Monitor patient's treatment adherence right after the transfer	0	-	1	-	99	-
(Adult) ...Verify the patient keeps using a correct inhaler technique right after the transfer	0	-	1	-	99	-
(Adult) ...Explain to the patient what information regarding severe asthma should monitor between visits (inhaler technique, adherence to treatment, rescue medication use, symptoms, number of exacerbations, among others)	0	-	4	-	96	-
(Adult) ...Closely monitor the patient to detect any severe asthma clinical change right after the transfer	0	-	8	-	92	-
(Adult) ...Monitor patient's attendance to follow-up visits during the first 12 months after the transfer	1	-	11	-	88	-
(Adult) ...Collect patient and parents/guardians overall satisfaction with the transition process	2*	10*	29*	26*	69*	64*
(Pediatric) ...Offer a "rescue visit" at pediatric care when the transition has been incomplete or unsuccessful	13*	25*	19*	11*	67*	64*
(Pediatric) ...Offer the patient the possibility to contact the pediatric specialist for severe asthma related concerns	11*	20*	22*	19*	66*	59*
(Pediatric) ...Call the patient that has transitioned to verify that the process has been adequately performed	29*	44*	35*	25*	37*	31*
(Adult) ...Schedule follow-up visits for the next 12 months after the first visit of the patient to adult care	10*	43*	26*	35*	64*	22*
(Adult) ...Notify parents/guardians about the patient becoming accountable on severe asthma self-management, so they should adopt a secondary role, without having to be present at follow-up visits	27*	39*	40*	38*	34*	22*
(Pediatric) ...Offer an on-site follow-up visit at pediatric care to verify that the transition has been correctly carried out	30*	51*	41*	27*	30*	21*

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Supplementary Table 5. List of participating panelists.

Abel Pallarés Sanmartín, Adrianna Machinena Spera, Alberto Álvarez Perea, Alejandro López Neyra, Alfredo Valenzuela Soria, Alicia Callejón Callejón, Alicia Habernau Mena, Álvaro Gimeno Díaz de Atauri, Ana Isabel Tabar Purroy, Ana María Martínez-Cañavate Burgos, Ana Sogo Sagardia, Anna Ferrer Franco, Andreu Peñas Aguilera, Anselmo de Andrés Martín, Antonio Moreno Galdó, Astrid Crespo Lessmand, Beatriz Abascal Bolado, Borja Osona Rodríguez de Torres, Carlos Cabrera López, Carlos Martín de Vicente, Carlos Martínez Rivera, Carolina Díaz García, Celia Pinedo Sierra, Cristina Rivas Juesas, David Gómez-Pastrana Durán, David González de Olano, David Romero Ribate, Elena Alonso Villán, Elena Hierro Delgado, Elena Pérez Belmonte, Elisabet Vera Solsona, Erwin Javier Pinillos Robles, Eusebi Chiner Vives, Eva Martínez Moragón, Francisco David El-Qutob López, Francisco Javier Álvarez Gutiérrez, Francisco Javier de Castro Martínez, Francisco Álvarez Caro, Francisco Pérez Grimaldi, Gemma García del Cerro, Genoveva del Río Camacho, Ignacio Antépara Ercoreca, Íñigo Ojanguren Arranz, Irán Sánchez Ramos, Irina Bobolea, , Jacinto Ramos González, Javier Álvarez-Coca González, Javier Gallego Borrego, Javier Pérez Frías, Jose Luis Izquierdo Alonso, José Manuel Merino Arribas, José María Vega Chicote, José Ramón Villa Asensi, José Damián López Sánchez, José Domingo Moure González, Juan Fraj Lazaro, Laura Moreno Galarraga, Leticia Vila Sexto, Lourdes Lázaro Asegurado, Luis Borderías Clau, Luis Echeverria Zudaire, Manuel Castilla Martínez, María Araceli Caballero Rabasco, Maria Basagaña Torrentó, María Cols Roig, María Mesa del Castillo Payá, María José Bueso Fabra, María Luisa González Gutiérrez, María del Mar Gandolfo Cano, María del Mar Martínez Colls, María del Mar Moro Moro, María del Valle Velasco González, Marta Palop Cervera, Mercedes García Reymundo, Miguel Ángel Zafra Anta, Miguel Tortajada Girbés, Mirella Piera Gaboli, Natalia Molini Menchón, Nuria Díez Monge, Olga Luengo Sánchez, Orlando Mesa Medina, Patricia García-Marcos Barbero, Pedro Galindo Bonilla, Pilar Gajate Fernández, Pilar Llobet Agullo, Porfirio Fernández González, Rocío Díaz Campos, Rubén Andújar Espinosa, Ruperto González Pérez, Santiago Quirce Gancedo, Santiago Rueda Esteban, Sara Fernández Cortés, Sara Pereiro Fernández, Sendy Chugo Gordillo, Silvia Castillo Corullón, Sonia de Arriba Méndez, Xabier Korta Murua, Yolanda Aliaga Mazas.

Supplementary Figure 1. Age ranges of patients with severe asthma by treatment specialty



Stacked bars show the proportion patients with severe asthma in each age range by specialty.

Supplementary Figure 2. Patient transfer checklist

TRANSFER CHECKLIST

Date

Patient data

An appointment has been scheduled with the patient in the adult care service Yes No
 The hospital pharmacy has been informed of the discharge/deregistration of the biologic in the dispensing register Yes No N/A

PATIENT INFORMATION

TREATMENT

Current maintenance treatment *Write down*

Biological treatment Yes Which one..... No

Treatment adherence level Adherence Non-adherence

 → Erratic
 → Deliberate
 → Non-deliberate

Previous treatments *Write down and specify reason for withdrawal*

ASTHMA CONTROL

Number of exacerbations in the last 12 months		Degree of asthma control (indicate test and score)
Number of visits to the emergency room in the last 12 months		
Number of hospital admissions in the last 12 months		
Number/cycles of oral corticosteroids in the last 12 months		

LUNG FUNCTION

		Pre	Date	Post	Date
Last 12 months	<i>FEV₁</i>				
	<i>Z Score</i>				
	<i>FVC</i>				
Best lung function	<i>FEV₁</i>				
	<i>Z Score</i>				

BIOMARKERS

	In the last 12 months	Highest value achieved
Fractional exhaled nitric oxide (FE _{NO})		
Peripheral blood eosinophilia		
Total IgE		

Exposure to tobacco smoke Yes No

COMORBIDITIES

<input type="checkbox"/> Atopic dermatitis	<input type="checkbox"/> Eosinophilic esophagitis	<input type="checkbox"/> Obesity
<input type="checkbox"/> Allergic rhinitis	<input type="checkbox"/> Food allergy	<input type="checkbox"/> Sleep apnoea-hypopnoea syndrome
<input type="checkbox"/> Chronic rhinosinusitis	<input type="checkbox"/> Gastro-oesophageal reflux	<input type="checkbox"/> Other

COMMENTS